



WASHINGTON STATE DEPARTMENT OF
Natural Resources

*Original to Esko, ANG
+ c to files
2396
2399
2332
2333*

BGWSF
8.2

BRIAN BOYLE
Commissioner of Public Lands

OLYMPIA, WA 98504

December 2, 1986

MEMORANDUM

TO: John DeMeyer, Aquatic Lands Division Manager
FROM: Bill Phillips, Engineering Division *BP*
SUBJECT: Port Washington Marina

*the information is for the record on
whether the new to install
sewer line across these areas*

On November 12, 1986, Terry Roswell and myself visited the Port Washington Marina with Mr. MacKenzie of the City of Bremerton to observe the alleged damage caused by dredging done in 1983. The City of Bremerton claims that dredging performed by Port Washington Marina has caused extensive beach erosion and has damaged their old 8-inch pressure sewer line. The history of events are as follow:

1983 - Port Washington Marina dredges the toe of the beach to allow free float of their floating dock. City of Bremerton notices that beach erosion has uncovered their 8-inch sewer main; the line is undermined in some areas, and the City feels a line failure may occur.

Late 1983 - City of Bremerton replaces the existing 8-inch line with a new 12-inch line located near the toe of the bluff.

December 1983 - Port Washington Marina installs their docks.

Spring of 1984 - Port Washington Marina installs filter fabric to the east portion of the beach to abate erosion and protect the boat house.

Fall of 1984 - Port Washington Marina installs filter fabric to the remainder of the affected beach.

Upon my visit to the site, my observations are as follows:

The existing beach material is composed of clay, silt and sand (the drilling reports from CH₂M Hill confirm this layer to be at least 8 feet in depth). The dredging operation left the exposed beach slope at an angle far in excess of the repose angle needed to withstand the natural currents which pass parallel to the beach.

John DeMeyer
December 2, 1986
Page 2

Port Washington Marina has made some attempts to abate the erosion, but it appears that substantial degradation occurred prior to their efforts. The east end of the beach has been covered with fabric and ballast (4-inch minus) covering the cut slope and portions of the upper beach. This appears to have been done in an effort to protect the existing boat house.

The central and westerly portion of the beach have been covered by fabric, which is weighed down by sand bags. The fabric appears to be in the process of decay, and many areas are now uncovered and exposed due to the current pulling the fabric loose.

Mr. MacKenzie showed me some of the monitoring points set by the consultant, and it appears that 2 to 6 inches of uniform erosion has occurred since their placement.

While observing the toe of the bluff, some new erosion due to tidal action is present. Bluff erosion is in the form of a minor amount of soil slippage caused by the removal of the supporting toe material.

To conclude, my findings are as follow:

The dredging had some effect in exposing the City of Bremerton's sewer main. The Port Washington Marina acknowledged the beach erosion problem and made some attempt to abate any further loss of beach material. Their efforts were only marginally successful and the loss of material is continuing. To complete the abatement process, the cut slope needs to be trimmed, protected with new fabric, and covered with angular stone ranging in size from 10 to 12 inches. If erosion abatement is not completed, the beach will continue to degrade and undermine the bluff. If the bluff is undermined, the stability of the apartment building at the top of the bluff will be jeopardized.

The City of Bremerton will be sending me a copy of their consultant's conclusions. After I get an opportunity to study this, I will submit a follow-up report.

If you have any questions regarding my report, please contact me at 753-2093.

BEP:rcm
Attachments
cc: Grant Fredricks
Paul Bourgault
Ray Sherman